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July 1962



**U. S. NAVAL RESEARCH LABORATORY
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PREFACE

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| R-1922 U 8/42 | Test of Type CXBG Radio Receiving Equipment, submitted by Panoramic Radio Corp. L. T. Bourland, H. J. Peake, A. L. Franta. PB17572, Mi\$1.00, Ph\$5.00. | P-1934 U 9/42 | A Study of Glass Sealers. P. King, R. L. Tave, A. L. Alexander. PB109562, Mi\$2.00, Ph\$3.75. | R-1949 U 10/42 | Test of Head Telephone Receivers, Type 49016, Head Bands, Type 49028, and Diaphragms, Type 49033, submitted by Dictograph Sales Corp. H. F. Hastings. PB109249, Mi\$1.50, Ph\$1.50. |
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| S-1924 U 8/42 | Performance Tests of Underwater Loud-Speaker Model X-3. (Supplement to NRL Report S-1900). J. M. Ide. PB16883, Mi\$5.50, Ph\$1.00. | R-1936 U 9/42 | Test of Insulating Material, Body Mix Nos. 158 and 32, submitted by Ohio Brass Co. J. E. Martin. PB109235, Mi\$1.25, Ph\$1.25. | R-1951 U 10/42 | Tests of Components for Models RBM, RBM-1, and RBM-2 Receiving Equipment. M. I. Hull. PB17579, Mi\$5.50, Ph\$3.00. |
| M-1925 U 8/42 | Research on the Weldability of Iron Alloys - Weldability Tests and Calculated Hardenability for 42 Carbon-Manganese Steels. C. E. Jackson, G. G. Luther, M. A. Pugacz. PB120538, Mi\$2.70, Ph\$4.80. | R-1937 U 10/42 | Test of Model SC-1 Radar Equipment, submitted by General Electric Co. R. M. Page, R. B. Myer, T. McL. Davis. | S-1952 U 10/42 | The Shock Produced by a Collapsing Cavity in Water. M. F. M. Osborne. PB109244, Mi\$2.75, Ph\$7.50. |
| O-1926 U 8/42 | Mine Detection of Magnetic Induction Methods. R. C. Waddel, J. Parker. | R-1938 U 9/42 | Specifications for Minimum Direction Finder Site Requirements. M. K. Goldstein. PB17571, Mi\$5.50, Ph\$2.00. | P-1953 U 10/42 | Prophylaxis and Treatment of Burns Caused by Chemical Warfare Agents. (3) Prophylaxis of M-1 Burns with Modified S-461 Ointment. L. E. Daily. |
| R-1927 U 9/42 | Test of Insulating Material, Steatite Nos. 1713 & 1717, submitted by General Electric Co. W. E. Bower. PB120629, Mi\$1.80, Ph\$1.80. | R-1939 U 9/42 | Test on Insulating Material, Steatite No. 1, submitted by Star Porcelain Co. H. F. Hastings. PB109243, Mi\$1.25, Ph\$1.25. | P-1954 U 10/42 | Sabotage Agents for Use in Lubricants and Fuels for Internal Combustion Engines, II. V. G. Fitzsimmons, H. R. Baker, C. M. Murphy, Jr. |
| R-1928 U 9/42 | Test of Insulating Material, Dilectene, No. 100, submitted by Continental-Diamond Fibre Co. W. E. Bower. PB120631, Mi\$1.80, Ph\$1.80. | R-1940 U 9/42 | Test of SX-1 and TX Insulating Material, submitted by Louthan Mfg. Co. H. F. Hastings. PB122739, Mi\$1.80, Ph\$1.80. | R-1955 U 11/42 | Tests of the Bell Laboratories and Arma Corp. Automatic Radar Equipment Used in Connection with a Mark 37 Director, Mark 1, Model 2 Computer and a Mark 4 Radar System. A. H. Schooley. PB120682, Mi\$3.30, Ph\$7.80. |
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| P-1961 U 11/42 | A Method for the Evaluation of the Abrasion Resistance of Aeroplane Propeller Finishes. C. Barber, J. B. Ballentine. PB109217, Mi\$2.00, Ph\$3.75. | R-1976 U 1/43 | Test of Model YG Homing Beacon Equipment, submitted by RCA Mfg. Co. S. M. Rice, M. F. Hodges, M. L. Leppert, H. R. Johannessen. | B-1991 U 2/43 | Test of Tachometer, Commercial Type, submitted by Ideal Commutator Dressor Co. F. W. Jank. PB120605, Mi\$2.40, Ph\$3.30. |
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| B-1963 U 11/42 | Test of Horns, Proposed Types H-10, H-11, H-12, and H-13, submitted by Defiance Alloyed Products Co. J. S. Bryant, F. H. Dunlap. | B-1978 U 2/43 | Test on Buzzers, Types Z-1 and Z-2, submitted by Benjamin Electric & Mfg. Co. J. S. Bryant. | B-1993 U 3/43 | Test of Horns, Types H-3 and H-4, submitted by Schwarze Electric Co. D. T. Scuderi. PB120608, Mi\$2.40, Ph\$3.30. |
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| B-1967 U 12/42 | Test of Contact Makers, Types "L" and "N," submitted by Detroit Lubricator Co. A. R. Donaldson, F. W. Jank. PB109228, Mi\$2.25, Ph\$5.00. | B-1982 U 1/43 | Test of Annunciator - 25 Drop, submitted by Bendix Aviation Corp. F. H. Dunlap. | P-1997 U 2/43 | The Prevention of Fogging of Optics in Submarine Periscopes. W. H. Schechter, R. R. Miller. PB120592, Mi\$2.40, Ph\$3.30. |
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B-2002 Test on Contact Maker, Type L,
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- R-2081 Operational Tests of Special "Chaff" Developed by Radio Research Laboratory, Harvard University (Supplementary Information for RRL Engineers Harvard University, Cambridge, Mass.). L. V. Blake, L. R. Philpott.
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- B-2083 Test on Horn, Proposed Types H-10 and H-11. (Manufacturer's Type WP-1), submitted by Maslo Marine Manufacturing Co.
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- B-2084 Test on Engine Order Telegraph System Removed from USS LAFAYETTE (AP 53).
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- O-2085 Hardness and Ballistic Performance of Six Face Hardened Armor Plates. A. J. Hodges, A. B. J. Clark, R. L. Kahler.
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- P-2086 The Development of False Target Shell Mark I.
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6/43 J. A. Grand, D. S. Burgess.
- M-2087 Partial Report on the Effect of Alloying Elements on the Hardenability of Steel. I. R. Kramer, R. H. Hafner, S. L. Toleman, R. B. DeAntonio.
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- R-2088 Tests of the Mark 10 Radar, submitted by Western Electric Co.
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6/43 J. P. Hagen, R. B. Meyer, T. McL. Davis.
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- R-2089 Tests of the Mark 11 Fire Control Radar Equipment - Preproduction Model No. 2, submitted by General Electric Co. J. P. Hagen, R. B. Meyer, T. McL. Davis.
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- B-2090 Test on Contact Maker, Type K-2, submitted by Betts and Betts Corp. J. S. Bryant.
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- R-2093 Tests of the Model SF Radar, submitted by The Submarine Signal Co. J. P. Hagen, R. B. Meyer, T. McL. Davis.
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7/43 PB28760, Mi\$4.00, Ph\$11.00.
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- R-2095 The Design and Development of an Effective Wide-Range Airborne Radar Jamming Equipment. H. M. Bryant, R. E. White.
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- P-2096 A Method for the Estimation of the Aromaticity of Aviation Gasolines, II. A. D. Swensen.
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6/43 PB120523, Mi\$3.00, Ph\$6.30.
- S-2097 The German Sound-Controlled Torpedo. An Analysis of its Probable Mode and Range of Operations and of Suitable Countermeasures. H. C. Hayes.
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- B-2098 Test on Transformer Type G.F., 200 VA, submitted by Dongan Electric Co. G. Pida.
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- R-2099 Effects on Shipboard of HF, DF, Radar and Homing Performance Installing of Their Antennas on a Common Mast. A. G. Loveberg.
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5/43 PB26705, Mi\$1.00, Ph\$2.00.
- B-2103 Test on Horn, Type H-5a, submitted by Sparks-Withington Co. J. S. Bryant.
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- B-2104 Test on Bells, Type B-1 and B-2, submitted by Federal Electric Co., Inc. D. T. Scuderi.
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- B-2105 Test on Shatterbond Coating, submitted by Wilbur and Williams Co. F. M. Holcomb, Jr., P. J. Loatman.
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- R-2251 Antennas for Guided Missiles Countermeasures Installed on DD-425 and DD-427. M. Katzin, H. E. LaGow, J. T. Bollhahn. PB28814, Mi\$1.00, Ph\$2.00.
- R-2252 Intercept Ranges Against SD Radar. U T. H. Chambers. 3/44 PB120741, Mi\$1.80, Ph\$1.80.
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- M-2258 Research on the Weldability of Iron Alloys. Effect of Electrode Diameter on T-Bend Results. K. E. Fritz, D. R. Roach, J. Davenport, G. G. Luther. PB109286, Mi\$2.25, Ph\$5.00.
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- P-2273 Properties of Carbide and Carbon Synthetic Polymer B-0-100 U Fluids of Interest in Lubrication and Hydraulics. H. R. Baker, H. F. Fobes, G. M. Hain, C. M. Murphy, H. A. Pohl, H. Shull, M. V. Sullivan, K. L. Temple, J. K. Wolfe, W. A. Zisman. 2/44 PB78599, Mi\$3.00, Ph\$8.00.
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- P-2334 Oxygen Source Material. XVI., U Potassium Production by a Combination Reduction-Distillation Reaction between Sodium and Molten Potassium Salts. C. R. Witschonke. PB109112, Mi\$2.50, Ph\$6.25.
- M-2335 Design for Test Coupons for Steel Casting. U 7/44 H. F. Bishop, R. C. Wayne. PB109424, Mi\$2.50, Ph\$5.25.
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- M-2340 A High Speed Dialometer and the Transformational Behavior of Six Steels (BuShips Welding Test No. 329). A. L. Christenson, E. C. Nelson. PB109289, Mi\$2.00, Ph\$3.75.
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- P-2342 The Vapor Lock and Freezing Point Characteristics of Methyl Alcohol-Ethyl Alcohol-Water De-Icing Fluids. G. S. Gordon. U 7/44 PB109290, Mi\$2.50, Ph\$5.25.
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- R-2346 Measurement of Ground Constants by Wave Tilt, Using Horizontal Polarization. M. G. Cheney, Jr. U 8/44
- R-2347 Analysis of Japanese Airborne Radar Equipment Captured at Hollandia on 22 April 1944. R. E. White, P. A. Hoffman, C. M. Russell. U 8/44 PB28827, Mi\$1.00, Ph\$3.00.
- H-2348 Atmospheric Transmission of Infrared Radiation. U 7/44 E. O. Hulburt.
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- M-2353 Research on the Weldability of Iron Alloys. Development of Manganese Silicon High Tensile Steels. G. G. Luther, F. H. Laxar, K. E. Fritz, J. A. Rinebolt, J. O. Mack, M. A. Riddle, D. B. Roach, J. Davenport, F. S. McKenna. U 9/44 PB110811, Mi\$2.50, Ph\$6.25.
- B-2354 Test on Salinity Indicating Equipment, submitted by Blake Marine Instrument Co. U 9/44 C. C. Tinstman, Jr. PB120581, Mi\$3.00, Ph\$6.30.
- B-2355 Test on Salinity Indicating Equipment, submitted by Instrument Laboratory, Inc. U 9/44 C. C. Tinstman, Jr. PB120580, Mi\$3.00, Ph\$6.30.
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- M-2357 The Causes for Porosity and Leakage in Non-Ferrous Castings: The Effects of Nickel, Zinc and Lead on the Mechanical Properties of Nickel-Tin Bronze Containing Five Percent Tin. U 8/44 R. L. Fox, R. H. Brouk, B. M. Loring. PB109444, Mi\$2.00, Ph\$3.75.
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- P-2359 A Method of Analysis for Anti-Oxidant in the New Synthetic B-0-100 Lubricants. H. A. Pohl. U 8/44 PB120757, Mi\$2.40, Ph\$3.30.
- B-2360 Test on Underwater Log Equipment Impeller Type, submitted by Bendix Aviation Corp. U 11/44 P. H. Roesser. PB120588, Mi\$3.00, Ph\$6.30.
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- M-2363 Relaxation of NAX-9115 and SAE-4130 Alloy Steels. U 10/44 F. A. Brandt, E. A. Rominski, W. O. Baker. PB109445, Mi\$2.00, Ph\$3.75.
- P-2364 A Controlled Laboratory Experiment to Compare Lesions Resulting from Applications of Mustard, Lewisite, and Nitrogen Mustards to the Skin of the Forearms of Humans. U 9/44 L. E. Daily, J. W. Clark, B. N. Stolp, J. C. Conner, Jr.
- R-2365 Guided Missiles Countermeasures, Band C Antenna. U 11/44 D. Wilson, R. E. Taylor, H. E. LaGow.
- R-2366 Radio Assault Beacon. U C. R. Okonski. U 9/44 PB120704, Mi\$2.70, Ph\$4.80.
- R-2367 Operational Performance of Special Radio Facilities Aboard Air-Rescue Boat C-36163. U 9/44 M. K. Goldstein, A. Brodzinsky. PB120703, Mi\$3.00, Ph\$6.30.
- R-2368 Audio-Frequency Sweep Equipment. R. G. Mills. U 9/44 PB120702, Mi\$3.00, Ph\$6.30.
- P-2369 Recommendations for Specifications Covering Wrinkle Finishes for Radio and Radar Equipment. U 10/44 R. D. Freriks, J. A. Suther, D. L. Moesta. PB99153, Mi\$2.25, Ph\$5.00.
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I - 2030
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Preparation of Silicone Compounds for Use in High Temperature Organic Finishes.

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- I - 4249
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- 1 - 1898
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- 3 - 1953

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- 1 - 5550
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- I - 5360
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I - 1937
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II - 1954

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I - 1815
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